

# **Exhibit J**

**(REDACTED)**

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**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

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SIMO HOLDINGS INC.

Plaintiff,

**Civil Action No.: 1:18-cv-5427 (JSR)**

-v-

HONG KONG UCLOUDLINK NETWORK  
TECHNOLOGY LIMITED, AND  
UCLOUDLINK (AMERICA), LTD.

Defendants.

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**REBUTTAL EXPERT REPORT OF DR. PAUL C. CLARK**

**Signed under the penalty of perjury, February 14, 2019**

  
\_\_\_\_\_  
Paul C. Clark

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51. I have written this report with the understanding that anticipation must be shown by clear and convincing evidence. I understand that clear and convincing evidence means that it is highly probable that the fact is true.

**II.2.6 Obviousness**

52. I have been instructed by counsel on the law regarding obviousness, and understand that even if a patent is not anticipated, it is still invalid if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary skill in the pertinent art.

53. I understand that a person of ordinary skill in the art provides a reference point from which the prior art and claimed invention should be viewed. This reference point prevents one from using his or her own insight or hindsight in deciding whether a claim is obvious.

54. I also understand that an obviousness determination includes the consideration of various factors such as (1) the scope and content of the prior art, (2) the differences between the prior art and the Asserted Claims, (3) the level of ordinary skill in the pertinent art, and (4) the existence of secondary considerations.

55. I understand that secondary considerations of non-obviousness may include (1) a long felt but unmet need in the prior art that was satisfied by the invention of the patent; (2) commercial success or lack of commercial success of processes covered by the patent; (3) unexpected results achieved by the invention; (4) praise of the invention by others skilled in the art; (5) the taking of licenses under the patent by others; and (6) deliberate copying of the invention. I also understand that there must be a relationship or nexus between any such secondary considerations and the claimed invention. I further understand that contemporaneous and independent invention by others is a secondary consideration supporting an obviousness determination.

56. I understand that any secondary consideration must bear a nexus to the claimed invention. Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention. I

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use of virtual SIMs. Accordingly, by the time the wireless communication client needs to obtain “suitable local authentication information,” it has already been assigned a suitable local virtual SIM and received a RAND authentication request for that suitable local virtual SIM from the local cellular communication network. Receiving an SRES that correctly authenticates the RAND for a specific SIM is well understood in the art, for example, by following the authentication procedures set forth in the 3GPP standard and as described in the specification of the '689 patent at 11:49-61. Therefore, a POSITA would know how to implement the “obtaining suitable local authentication information” limitation without any undue experimentation. Accordingly, it is my opinion that this limitation is enabled.

#### **V.1.7 Objective Indicia of Non-Obviousness**

216. Dr. Feuerstein has not opined on any secondary considerations of non-obviousness in his obviousness analysis. In my opinion, there substantial, objective indicia that the invention of the '689 patent was non-obvious.

217. I discuss those factors below.

##### *Long felt need*

218. Before the invention of the '689 patent, high roaming fees during international travel posed a significant concern to many, from frustrated travelers to governments and user's could not avoid such roaming fees without the hassle of purchasing multiple SIM cards. *See* Ex. 128 (“international roaming charges were 3-5 times higher than the costs”); Ex. 127 (“The view that international mobile roaming charges are disproportionately high relative to costs has been expressed in a number of other studies and surveys as well as in regulatory debates.”) and (“On average, international mobile roaming prices were four times higher than national mobile calls.”); Ex. 126 (“high charges the Commission has observed that Australian mobile subscribers incur when they roam in New Zealand”).

219. In a further example, an Australian tourist was billed \$571,000 for a roaming mobile bill. Ex. 8, “Aussie tourist cops \$571,000 global roaming mobile bill” at p.3, SIMO\_0263681-685. In

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a 2012 article, the Wall Street Journal published an article including several more cautionary tales, along with advice on how to avoid these high roaming charges. Ex. 9, “Stuck With a \$10,000 Phone Bill” at p.5-8, SIMO\_0263699-706; *see also* Exs. 10-12, 129.

220. These and other stories, as well as my own personal experience, tells me that there was no available solution in the marketplace prior to the '689 invention. Indeed, a whole cottage industry of local mobile phone and SIM card rental services developed, and still exist. *See* '689 patent at 2:38-59. Mobile phones had been in widespread use by international travelers for at least a decade before the '689 patent, yet no satisfactory solution that allowed seamless roaming at local rates, without the need to rent local phones or SIM cards, existed. Purchasing or renting local SIMs or phones was costly and inconvenient to users.

221. Further, other existing technologies failed to provide the benefits of the patented invention. For example, eSIMS are assigned long-term to a device by a carrier, as opposed to virtual SIMs, which may be assigned per-session to a device. Users with devices containing eSIMs must have a contract with a local carrier to use that carrier's eSIM. This means that if the user travels to multiple countries, the traveler must sign up with a local carrier on a carrier-by-carrier basis. The '689 patent, by contrast, allows users to buy data or day passes as needed with only an account with the virtual SIM provider.

222. Further, because eSIM users must sign up on a carrier-by-carrier basis, they do not have the ability to choose the best local carrier. Thus, they may end up signing a contract with a local carrier that has worse rates or signal strength than other local carriers.

*Commercial success*

223. Both Skyroam and uCloudlink's products that practice the invention have been commercially successful. *See* Martinez Report at pp. 43-52. For example, [REDACTED]

[REDACTED] *Id.* at 43-45. uCloudlink has also increased its revenue stream and its gross profits based on products that practice claims of the '689 patent. *Id.* at 50-51. I hereby incorporate by

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reference the evidence of Skyroam's and uCloudlink's commercial success as set forth in Mr. Martinez's January 14, 2019 report.

*Praise of the invention*

224. Skyroam's products that practice the claims of the '689 patent have received recognition from both satisfied customers and the industry at large. For example, Skyroam won the UPS Innovation Award at TechCrunch Disrupt in 2015 and the Skyroam Solis was named one of Fathom Travel Awards 2018's "Essential Travel products. See Exs. 130-132. Skyroam's products that practice the '689 patent have also been praised in a variety of reviews for their ability to use a virtual SIM to eliminate roaming fees - the exact functionality enabled by the '689 patent. See, e.g. Exs. 133-138.

225. The '689 patent has also been cited by at least 33 other patents or patent applications as tracked by Google patents at <https://patents.google.com/patent/US9736689B2/en?q=9736689>.

226. uCloudlink has also received a variety of praise products practicing the '689 patent. See, Ex.139, UCLOUDLINK0344755-765.

*Deliberate copying of the invention*

227. In my opinion, there is significant evidence that uCloudlink copied Skyroam's patented technology. uCloudlink's accused products were first sold in the United States in 2016, roughly eight years after the application resulting in the '689 patent was filed, four years after the related '735 patent issued, and several years after Skyroam began selling its WiFi hotspot products. uCloudlink's corporate witness testified that uCloudlink regularly purchases and tests new Skyroam products shortly after the release of a new product and engaged [REDACTED] [REDACTED] to monitor Skyroam's products. Ex. 32, Zeng Dep. at 75:19-79:24. Further, uCloudlink was aware of U.S. Patent 8,116,735, a patent that shares the same specification as the '689 patent, since at least April 2016. See *id.* at 65:15-23.

228. Most importantly, I understand that uCloudlink hired Wang Bin, a former Skyroam employee, in 2013. Mr. Bin was aware of the technical operations of Skyroam's products and

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shared multiple confidential Skyroam documents (e.g. Ex. 155-160) with uCloudlink. *See, e.g.* Exs. 140-141, Dep. of Wang Bin and exhibits thereto; Ex. 142, Transcript of Claim Construction Hearing, and Ex. 143, Defendants SIMO Holdings Inc.'s and Skyroam, Inc.'s Motion for Leave to File Amended Answer and Counterclaims to Complaint for Patent Infringement and for Joinder. I further understand that Skyroam's patented technology is not the only Skyroam invention that uCloudlink has copied, but, for example, they also filed a variety of patent applications based on the disclosures in the confidential Skyroam documents provided to uCloudlink from Wang Bin. *See, e.g.*, Exs. 153, 154, 161-164.

229. For example, Skyroam and SIMO's counterclaims for trade secret misappropriation in Case 3:18-cv-05031-EMC against the Defendants in this case include the following allegations (Ex. 103):

3. Counterclaimants recently discovered, however, that the uCloudlink entities have engaged in a systematic conspiracy to steal Counterclaimants' core confidential, proprietary, and trade secret technologies, and use those trade secret technologies to develop uCloudlink's own directly competitive products. uCloudlink has also used Counterclaimants' trade secrets to illegally obtain patent protection in China on several of the trade secret technologies it blatantly conspired to steal from Counterclaimants.<sup>2</sup>

4. uCloudlink's theft of Counterclaimants' trade secrets starts with a Chinese citizen, Wang Bin. Mr. Bin, along with uCloudlink's CEO and founders, worked together at the Chinese telecommunications company, Huawei. Whereas uCloudlink's CEO, its founders, and upon information and belief, other individuals, left Huawei to form uCloudlink to compete with Counterclaimants, Mr. Bin left his Huawei colleagues to join Counterclaimant Skyroam Shenzhen.

5. Mr. Bin worked for Skyroam Shenzhen from April 2013 until August 2013. During his short time at Skyroam Shenzhen, Mr. Bin had access to sensitive, top secret, confidential, proprietary, trade secret information of Counterclaimants.



6. Unbeknownst to Counterclaimants until very recently, Mr. Bin used his time at Skyroam Shenzhen to collect and purloin Counterclaimants' trade secrets for the purpose of using them at Counterdefendants uCloudlink.

7. Approximately one month after Mr. Bin left Skyroam Shenzhen, in September 2013, he joined his former Huawei colleagues at a uCloudlink entity as an employee.

8. Counterclaimants were unaware of these facts until over the course of discovery in Counterclaimants' affirmative patent infringement case in the Southern District of New York,<sup>3</sup> it became clear that uCloudlink possessed numerous documents that indisputably contain Counterclaimants' confidential, proprietary, and trade secret information, related to the same general technology behind uCloudlink's core Glocalme products, which directly compete with Counterclaimants' products.

9. First, on October 12, 2018, uCloudlink supplemented its response to Counterclaimants' interrogatories in the New York Patent Case, including an interrogatory that sought the identity of any former SIMO employees that subsequently joined uCloudlink. For the first time, uCloudlink belatedly added Mr. Wang Bin as a current uCloudlink employee, who was formerly employed by Skyroam Shenzhen. uCloudlink indicated that Mr. Bin might have information relevant to claims and/or defenses in that action.

10. That same day, presumably in response to Counterclaimants' written discovery requests in the New York Patent Case seeking "documents relating to SIMO," uCloudlink produced nearly thirty thousand pages of documents, which included over ten separate documents belonging to Counterclaimants. Many of these documents were marked internally as Counterclaimants' "Confidentiality Level: Top Secret" and/or bore Skyroam's trademark. These documents are referred to collectively hereinafter as the "Skyroam Confidential Documents."

11. One of the Skyroam Confidential Documents (Bates No. UCLOUDLINK0043869), by way of example, contains Counterclaimants' confidential, proprietary, and trade secret system

design specifications that are indisputably not public information and that could only be obtained by improper means from Skyroam.

12. Not so coincidentally, more than one of the Skyroam Confidential Documents, including UCLOUDLINK0043869 and UCLOUDLINK0043881, are authored by Wang Bin—the former systems architect at Skyroam Shenzhen—identified for the *first time* in uCloudlink's supplemental interrogatory responses in the New York Patent Case as its current employee on *the same day* uCloudlink served the massive production containing the Skyroam Confidential Documents.

13. On October 19, 2018, at the parties' *Markman* hearing in the New York Patent Case, the New York Court asked uCloudlink to explain the circumstances under which uCloudlink came into possession of the Skyroam Confidential Documents.

14. On the record before the Court, uCloudlink immediately pointed the finger at Wang Bin.

15. Indeed, uCloudlink's counsel stated that Wang Bin "used his personal computer with the work computer together while he work[ed] with Skyroam. So later on when he joined uCloudlink, he copied the same documents . . . to [his] uCloudlink work computer."

16. uCloudlink's attorneys also indicated that Wang Bin explicitly refused to cooperate with the forensic expert uCloudlink hired to create an image and preserve the contents of Wang Bin's personal computer—the very computer that he admitted contained and, barring illegal spoliation of evidence, still contains Counterclaimants' confidential, proprietary, and trade secret information. uCloudlink admitted that it sought to image Mr. Bin's personal computer, which contained the Skyroam Confidential Documents, but Mr. Bin refused to allow a vendor hired and selected by his own company's lawyers to do so.

17. The Court was "trouble[d]" by this and recommended that uCloudlink "bring[] more pressure to bear on Mr. [Bin] to give access to his personal computer because it is compromising his ability to be a useful employee, and that does affect the company."



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18. Ultimately, at a time unknown to Counterclaimants, but before November 12, 2018, an electronic image of Mr. Bin's personal computer was apparently taken. Mr. Bin and uCloudlink have refused to allow Counterclaimants access to this electronic image to learn of the extent of Mr. Bin's theft.

19. Since the October 19, 2018 hearing, Counterclaimants discovered that uCloudlink's counsel's statement that Mr. Bin came into possession of the Skyroam Confidential Documents due to his use of a personal computer while at Skyroam was misleading and incorrect. Indeed, Wang Bin later testified under oath that he used a thumb drive to steal the documents from Skyroam and to copy the documents to his home computer.

20. On November 7, 2018, Wang Bin was deposed.

21. When asked during his deposition about his theft of the Skyroam Confidential Documents, Mr. Bin initially refused to answer many related questions based on a vague assertion of "personal privacy" on at least 16 different occasions. Counterclaimants moved to compel his testimony over the baseless objection, and the New York Court granted Counterclaimants' motion. The Court also prohibited uCloudlink's counsel from making any statements other than "objection" due to what it deemed was inappropriate conduct by uCloudlink's counsel at the first day of the deposition.

22. On November 8, 2018, thirty minutes before the second day of Mr. Bin's deposition was to commence, uCloudlink's counsel unilaterally cancelled the deposition asserting, incorrectly, that a conflict had "arisen" due to the Court's order compelling Mr. Bin's testimony. During a telephonic conference with the Court the following day, the Court noted that a conflict had not in fact "just arisen" due to its order compelling Mr. Bin's testimony, and that uCloudlink knew or should have known about any such conflict no later than the October 19, 2018 hearing.

23. Mr. Bin's second day of deposition was then rescheduled for several days later, on November 12, 2018.

24. At the second day of the deposition, Counterclaimants again questioned Mr. Bin about his theft of their trade secrets. Rather than asserting a "privacy" objection or providing any

response to these questions, Mr. Bin refused to answer and pled the Fifth Amendment of the United States Constitution. Indeed, Wang Bin pled the Fifth Amendment to over forty-one (41) separate questions, including to the question of whether “in [his] view is stealing wrong?”

25. Mr. Bin would not provide an explanation of why he stole Counterclaimants' trade secrets or the extent of his theft.

26. uCloudlink terminated Mr. Bin either immediately after the second day of his deposition or close in time thereto.

27. Further investigation by Counterclaimants revealed that the Skyroam Confidential Documents, along with other of Counterclaimants' confidential, proprietary, and trade secret information, were discussed by key uCloudlink employees and used by uCloudlink in patent applications filed in China naming Wang Bin as one of the inventors.

28. Significantly, uCloudlink's CEO, Gao Wen, is named as a co-inventor on two of these patent filings that use and disclose some of Counterclaimants' trade secrets, and other senior executives at uCloudlink are also named as co-inventors with Wang Bin on others of these patents.

29. The only plausible explanation for uCloudlink's possession and use of Counterclaimants' trade secrets is that uCloudlink's most senior executives conspired with Wang Bin to steal Counterclaimants' core trade secrets, and used these core trade secrets to unfairly compete with Counterclaimants. This conclusion is further corroborated by uCloudlink testimony that Wang Bin, uCloudlink's CEO Gao Wen, and—upon information and belief—additional uCloudlink executives, worked together at Huawei prior to joining uCloudlink.

30. Subsequent internal technical documents drafted by uCloudlink employees as of November 24, 2016, expound upon the details disclosed in the Skyroam Confidential Documents and, therefore, evidence uCloudlink's use and/or imminent intent to use the information contained within the Skyroam Confidential Documents in the development of uCloudlink's WiFi hotspot devices.

31. Based on the production of the Skyroam Confidential Documents, Counterclaimants were able to identify at least one Chinese patent application, CN105491555A, that discloses the



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contents of the Skyroam Confidential Documents copied over from Wang Bin's Skyroam computer to his uCloudlink computer. The patent application lists Wang Bin and uCloudlink's CEO, Gao Wen, as co-inventors.

32. Indeed, CN105491555A's technical disclosure, which lists Wang Bin as its author, includes large sections that *copied word for word* substantial passages from the stolen Skyroam trade secret document.

33. In addition, Counterclaimants have identified the following uCloudlink patents that list Wang Bin as an inventor and that, on information and belief, disclose Counterclaimants' stolen trade secrets: CN105282701-A (application publication date: Jan. 27, 2016), CN105228179-A (application publication date: Jan. 6, 2016), CN105979500-A (application publication date: Sept. 28, 2016), CN105813233-A (application publication date: July 27, 2016), CN106211119-A (application publication date: Dec. 7, 2016).

34. The Skyroam Confidential Documents reveal, *inter alia*, key innovative and cost saving solutions to solving specific problems relating to roaming SIM cards, protocol for upgrade designs, methods of use for proxy communication servers, virtual SIM allocation, design of backend billing system, and data link management for carrier re-authentication. uCloudlink's use of such information has caused and will continue to cause substantial and irreparable injury to Counterclaimants.

35. Counterclaimants bring this action to halt and remedy the intentional dissemination and use of their intellectual property, in violation of federal and state trade secret misappropriation laws and the federal patent laws of the United States.

230. Thus, there is evidence that not only did uCloudlink misappropriated Skyroam's confidential information, it also copied Skyroam's patented technology in uCloudlink accused products.

## VI. CONCLUSION

231. For the reasons stated above, in my opinion, Dr. Feuerstein has not shown that any of claims 8 and 11-14 of the '689 patent are invalid due anticipation or obviousness. Further, in my